

Application No. 10/585629  
Responsive to the office action dated March 1, 2010

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**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for deuteration of a compound having an aromatic ring, comprising reacting the compound having an optionally substituted aromatic ring with a heavy hydrogen source in the presence of an activated mixed catalyst ~~comprising at least two catalysts selected from the group consisting of a~~ palladium catalyst[~~(,)~~] and a platinum catalyst, a rhodium catalyst, an iridium catalyst, a ruthenium catalyst, a nickel catalyst, and a cobalt catalyst under sealed reflux condition.
2. (Original) The method for deuteration according to claim 1, wherein the heavy hydrogen source is a deuterated solvent.
3. (Original) The method for deuteration according to claim 2, wherein the deuterated solvent is heavy water (D<sub>2</sub>O).
4. (Currently amended) The method for deuteration according to claim 1, wherein the activated mixed catalyst is a catalyst obtained by activating ~~a mixed catalyst comprising at least two catalysts selected from the group of non-activated catalysts~~ consisting of a palladium catalyst[~~(,)~~] and a platinum catalyst[~~(,)~~] a rhodium catalyst, an iridium catalyst, a ruthenium catalyst, a nickel catalyst, and a cobalt catalyst by contacting the non-activated catalysts with hydrogen gas or heavy hydrogen gas.
5. (Original) The method for deuteration according to claim 4, wherein the contact of the non-activated mixed catalyst with hydrogen gas or heavy hydrogen gas is carried out in a reaction system of the deuteration.
6. (Cancelled)

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7. (Currently Amended) The method for deuteration according to claim ~~[[6]]~~1, wherein the palladium catalyst is palladium carbon.
8. (Currently Amended) The method for deuteration according to claim ~~[[6]]~~1, wherein the platinum catalyst is platinum carbon.
9. (Currently Amended) The method for deuteration according to claim ~~[[6]]~~1, wherein the activated mixed catalyst of a palladium catalyst and a platinum catalyst has a weight ratio of each metal in the palladium catalyst and the platinum catalyst of 1:99 to 99: 1.
10. (Previously Presented) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has at least one optionally substituted alkyl group bonded to the aromatic ring.
11. (Previously Presented) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has an alkylamino group bonded to the aromatic ring.
12. (Previously Presented) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has a carboxyl group bonded to the aromatic ring.
13. (Previously Presented) The method for deuteration according to claim 1, wherein the compound having an optionally substituted aromatic ring has at least one optionally substituted alkenyl group bonded to the aromatic ring.